

AE Threaded Combination and Non-Combination Full Voltage Motor Starters

Explosionproof, Dust-Ignitionproof, Watertight

Units Provide Disconnecting Means and Undervoltage, Circuit and Motor Running Protection.

NEC:

Class I, Division 1 and 2, Groups C, D
Class II, Division 1 and 2, Groups E, F, G
Class III
NEMA 4, 4X, 7CD, 9EFG

Applications

- “AE” series threaded type combination and non-combination motor starters are used in areas where hazardous materials are handled or stored.
- These units provide disconnecting means, undervoltage protection, circuit protection and motor running protection.
- Full voltage across the line starting and stopping of squirrel cage induction motors.
- Remote starting and stopping motor as needed.

Features

- Cast on slotted mounting feet.
- Ground lug package and installation instructions for termination of ground wires.
- Reset operator with stainless steel shaft.
- Breaker handles can be locked in the ON or OFF position (combination starters only).
- Drilled and tapped outlets.
- Standard outlets are determined by motor starter size.
- Outlets for remote control wiring.
- Plugged 1/2” outlets top and bottom for breather and drain.
- Three plugged 3/4” NPSM outlets drilled and tapped for needed lights or switches.
- Ample space is provided for installation and wiring of additional accessories.
- Painted removable pan.
- Enclosures are designed to accept GE [▶], Square D [■] and Cutler-Hammer ⁺ motor starters. For other brands—contact your local representative. Cutler-Hammer furnished standard unless otherwise specified.
- Motor circuit protectors are available on combination starters.
- Enclosures furnished with or without components.
- Readily accessible circuit breaker mounted outside the center housing.
- Rated for NEMA 4X (gray epoxy-coated inside and outside).
- Acme screw type square threads designed to prevent seizing.
- Bell threads are located inside the housing—protects against damage or contaminants.

Standard Materials

- Housings: copperfree (4/10 of 1%) aluminum
- Shaft, bushings and exposed hardware: stainless steel

Standard Finishes

- Housings: epoxy - coated inside and outside

Options

- See modifications page.

NEC Certifications and Compliances

- UL Standards: UL 508, UL 698, UL 1203
- UL Classified: E84577



Exterior



Interior

▶ GE is a registered trademark of General Electric Company.
■ Square D is a registered trademark of Schneider Electric.
+ Cutler-Hammer is a registered trademark of Eaton Corporation.

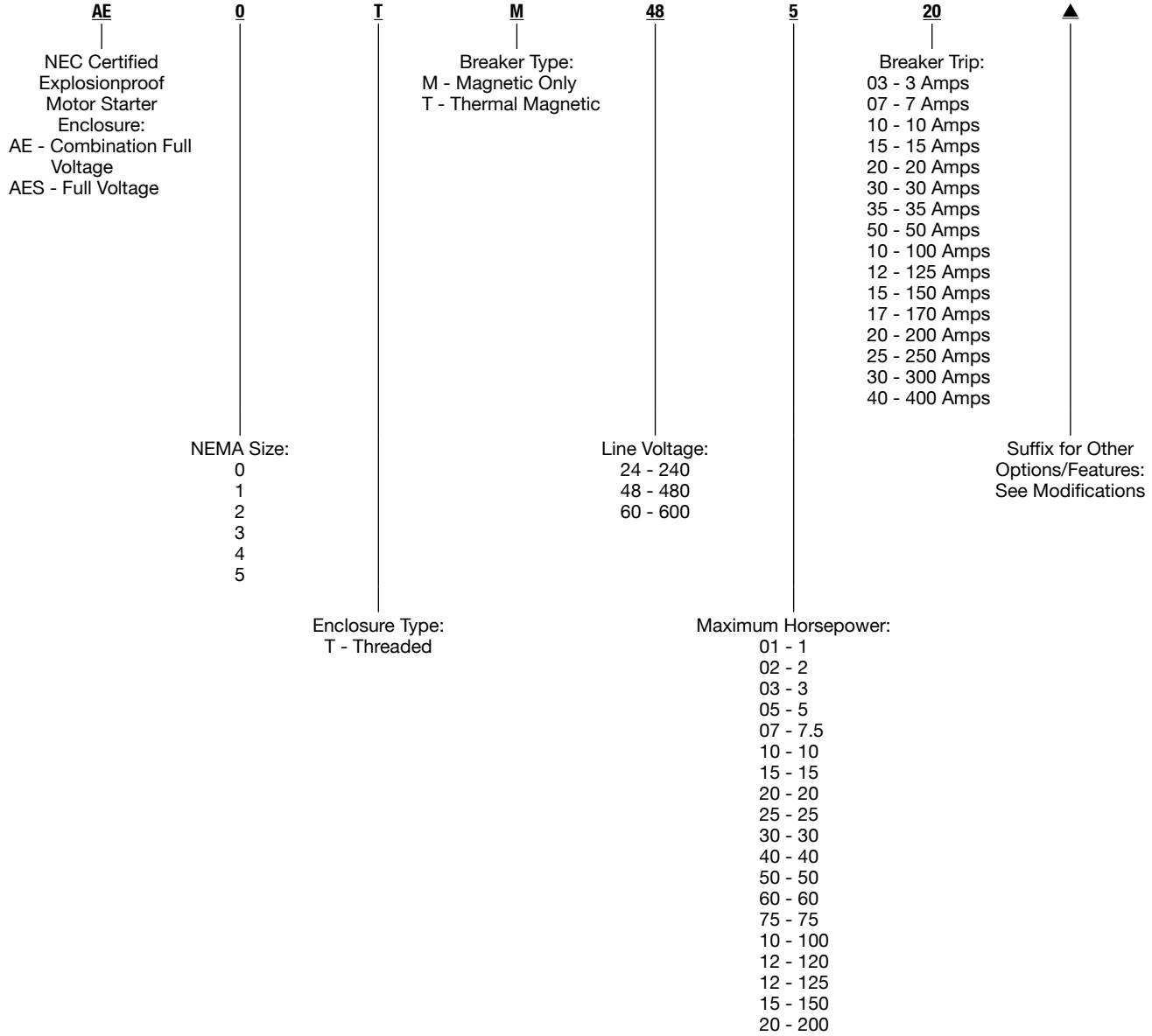
AE Threaded Combination and Non-Combination Full Voltage Motor Starters

Explosionproof, Dust-Ignitionproof, Watertight

Units Provide Disconnecting Means and Undervoltage, Circuit and Motor Running Protection.

NEC:
 Class I, Division 1 and 2, Groups C, D
 Class II, Division 1 and 2, Groups E, F, G
 Class III
 NEMA 4, 4X, 7CD, 9EFG

Catalog Numbering Guide



AE Threaded Combination/Non-Combination Full Voltage Motor Starter Modifications

Explosionproof, Dust-Ignitionproof, Watertight

Threaded Enclosure. 3-Phase, 60 Hertz, Nonreversing.

NEC:

Class I, Division 1 and 2, Groups C, D
Class II, Division 1 and 2, Groups E, F, G
Class III
NEMA 4, 4X, 7CD, 9EFG

| Description | Suffix Factory Installed | Catalog Number Field Installed |
|---|--------------------------------|---|
| Operators ① | | |
| Start/Stop dual push button | S3X | AEPDGRE |
| Stop push button | S2X | AEPRC |
| Start push button | S1X | AEPGA |
| Stop, lighted PB, red 120 Vac | LP5X | AEPTRE |
| Start, lighted PB, green 120 Vac | LP4X | AEPTGE |
| 3 position selector switch specify legend | A3X | AESS31MN |
| 2 position selector switch specify legend | A2X | AESS22ML |
| Red pilot light, 120 Vac | L5 | AEPL1R |
| Green pilot light, 120 Vac | L4 | AEPL1G |
| Red pilot light, 240 Vac | L52 | AEPL2R |
| Green pilot light, 240 Vac | L42 | AEPL2G |
| Red pilot light, 480 Vac | L54 | AEPL4R |
| Green pilot light, 480 Vac | L44 | AEPL4G |
| NEMA 4X Breather/Drain Fittings | | |
| Drain fitting | DN | DRNB4X |
| Breather fitting (Drilled and tapped installation included.) | BR | BRTB4X |
| Control Power Options ②③ | | |
| Fused CPT, 50 Vac | T1 | AFCPT050 |
| Fused CPT, 100 Vac | T2 | AFCPT100 |
| Fused CPT, 200 Vac | T3 | AFCPT200 |
| Fused CPT, 250 Vac | T4 | AFCPT250 |
| Fused CPT, 50 Vac w/Interposing Relay | T5 | AFCPT050R |
| Fused CPT, 150 Vac | T6 | AFCPT150 |
| Fused CPT, 300 Vac | T7 | AFCPT300 |
| Fused CPT, 500 Vac | T8 | AFCPT500 |
| Fused CPT, 750 Vac | T9 | AFCPT750 |
| Separate control fused circuit | S-120V | N/A |
| Specify starter coil voltage | S-240V | N/A |
| | S-480V | N/A |

| Description | Suffix Factory Installed | Catalog Number Field Installed |
|--|--------------------------------|---|
| Nameplates | | |
| Engraved nameplate — black letters on white surface, 50.8 x 101.6 mm (2" x 4"), 3.18 mm (0.125") letters, 3 lines max. specify legend | NP | n/a |
| Overload Heater – Provide FLA at the time of order. | | |
| | 120 Vac | O-120V AFA4327X11 |
| 40W enclosure space heaters | 240 Vac | O-240V AFA4327X12 |
| | 480 Vac | O-480V AFA4327X13 |
| Control Terminal Blocks (Above 12 points contact your local representative) | | |
| 20 Amp, 600 Vac | 8 point | 8K N/A |
| NEMA 1B w/wire markers | 12 point | 12K N/A |
| Interrupt Ratings | | |
| 14k AIC standard. Contact your local representative for higher interrupt capacities. | | |
| Cutler-Hammer + Starter Auxiliary Contacts | | |
| Size 0-4 ④ | 1NO/1NC | X11C AJ-11 |
| | 2NO/2NC | X22C AJ-11 (2 ea.) |
| Size 5 ⑤ | 1NO/1NC | X511C A3463D94G18 |
| | 2NO/2NC | X522C A3463D94G18 (2 ea.) |
| Square D ■ Starter Auxiliary Contacts | | |
| Size 0-5 ⑥ | 1NO/1NC | X11S A999SX8 |
| | 2NO/2NC | X22S A999SX8 (2 ea.) |

NOTE: CPT includes primary and secondary fuses.

① Add —L to part no. for Size 5 starters.

② Size 1 and 2 150 Vac Max. Size 3 and 4 300 Vac Max.

③ Contact your local representative for other voltages.

④ 8 Aux. Contacts Max. includes one seal-in and seven added.

⑤ 4 Aux. Contacts Max. includes one seal-in and three added.

⑥ Size 0-1 includes one seal-in and four added. Size 2-5 includes one seal-in and three added.

+ Cutler-Hammer is a registered trademark of Eaton Corporation.

■ Square D is a registered trademark of Schneider Electric.

AE Threaded Combination Full Voltage Motor Starters With Thermal Magnetic Breakers

Explosionproof, Dust-Ignitionproof, Watertight

Threaded Enclosure. 3-Phase, 60 Hertz, Nonreversing.

NEC:

Class I, Division 1 and 2, Groups C, D
 Class II, Division 1 and 2, Groups E, F, G
 Class III
 NEMA 4, 4X, 7CD, 9EFG

NEC/CEC CLASS/ZONE RATED HAZARDOUS LOCATION MOTOR STARTERS

| Line Voltage | Maximum Horsepower | NEMA Size | Breaker Amps | Catalog Numbers [▲] | Weight kg (lb) | Conduit Sizes Loc. A, B, C and D | | Mounting Hardware Set Catalog Number | |
|--------------|--------------------|-----------|--------------|------------------------------|----------------|----------------------------------|------------------|--------------------------------------|------|
| | | | | | | Standard (Inches) | Maximum (Inches) | | |
| 240 | 2 | 0 | 15 | AE0TT-240215 | 32 (70) | 1-1/4 | 1-1/2 | AMH2 | |
| | 3 | | 20 | AE0TT-240320 | | | | | |
| | 5 | 1 | 35 | AE1TT-240535 | 32 (70) | 1-1/4 | 1-1/2 | | |
| | 7-1/2 | | 50 | AE1TT-240750 | | | | | |
| | 10 | 2 | 50 | AE2TT-241050 | 50 (110) | 1-1/2 | 1-1/2 | | |
| | 15 | | 100 | AE2TT-241510 | | | | | |
| | 20 | 3 | 100 | AE3TT-242010 | 57 (125) | 2 | 2-1/2 | | |
| | 30 | | 125 | AE3TT-243012 | | | | | |
| | 40 | 4 | 175 | AE4TT-244017 | 59 (130) | 2-1/2 | 2-1/2 | | |
| | 50 | | 200 | AE4TT-245020 | | | | | |
| | 60 | 5 | 250 | AE5TT-246025 | 150 (330) | 4 | 4 | | AMH5 |
| | 75 | | 300 | AE5TT-247530 | | | | | |
| 100 | 400 | | AE5TT-241040 | | | | | | |
| | | | | | | | | | |
| 480 | 3 | 0 | 15 | AE0TT-480315 | 32 (70) | 1-1/4 | 1-1/2 | AMH2 | |
| | 5 | | 20 | AE0TT-480520 | | | | | |
| | 7-1/2 | 1 | 30 | AE1TT-480730 | 32 (70) | 1-1/4 | 1-1/2 | | |
| | 10 | | 35 | AE1TT-481035 | | | | | |
| | 20 | 2 | 50 | AE2TT-482050 | 50 (110) | 1-1/2 | 1-1/2 | | |
| | 25 | | 70 | AE2TT-482570 | | | | | |
| | 50 | 3 | 100 | AE3TT-485010 | 57 (125) | 2 | 2-1/2 | | |
| | 60 | | 125 | AE4TT-486012 | | | | | |
| | 75 | 4 | 150 | AE4TT-487515 | 59 (130) | 2-1/2 | 2-1/2 | | AMH2 |
| | 100 | | 200 | AE4TT-481020 | | | | | |
| | 125 | 5 | 250 | AE5TT-481225 | 150 (330) | 4 | 4 | | AMH5 |
| | 150 | | 300 | AE5TT-481530 | | | | | |
| 200 | 400 | | AE5TT-482040 | | | | | | |
| | | | | | | | | | |
| 600 | 5 | 0 | 15 | AE0TT-600515 | 32 (70) | 1-1/4 | 1-1/2 | AMH2 | |
| | 7-1/2 | | 20 | AE1TT-600720 | | | | | |
| | 10 | 1 | 30 | AE1TT-601030 | 32 (70) | 1-1/4 | 1-1/2 | | |
| | 15 | | 40 | AE2TT-601540 | | | | | |
| | 25 | 2 | 50 | AE2TT-602550 | 50 (110) | 1-1/2 | 1-1/2 | | |
| | 30 | | 70 | AE3TT-603070 | | | | | |
| | 50 | 3 | 100 | AE3TT-605010 | 57 (125) | 2 | 2-1/2 | | |
| | 75 | | 125 | AE4TT-607512 | | | | | |
| | 100 | 4 | 150 | AE4TT-601015 | 59 (130) | 2-1/2 | 2-1/2 | | |
| | 150 | | 250 | AE5TT-601525 | | | | | |
| | 200 | 5 | 300 | AE5TT-602030 | 136 (300) | 4 | 4 | | AMH5 |
| | | | | | | | | | |

▲ To complete the catalog number please add the appropriate suffix for other options/features. Suffixes, see AE Threaded Combination and Non-Combination Full Voltage Motor Starter Modifications.

AE Threaded Combination Full Voltage Motor Starters With Magnetic Breakers

Explosionproof, Dust-Ignitionproof, Watertight

Threaded Enclosure. 3-Phase, 60 Hertz, Nonreversing.

NEC:

Class I, Division 1 and 2, Groups C, D
 Class II, Division 1 and 2, Groups E, F, G
 Class III
 NEMA 4, 4X, 7CD, 9EFG

| Line Voltage | Maximum Horsepower | NEMA Size | Breaker Amps | Catalog Numbers [▲] | Weight kg (lb) | Conduit Sizes Loc. A, B, C and D | | Mounting Hardware Set Catalog Number |
|--------------|--------------------|-----------|--------------|------------------------------|----------------|----------------------------------|------------------|--------------------------------------|
| | | | | | | Standard (Inches) | Maximum (Inches) | |
| 240 | 1 | 0 | 7 | AE0TM-240107 | 32 (70) | 1-1/4 | 1-1/2 | AMH2 |
| | 3 | | 15 | AE0TM-240315 | | | | |
| | 7 | 1 | 30 | AE1TM-240730 | 32 (70) | 1-1/4 | 1-1/2 | |
| | 15 | 2 | 50 | AE2TM-241550 | 50 (110) | 1-1/2 | 1-1/2 | |
| | 30 | 3 | 100 | AE3TM-243010 | 57 (125) | 2 | 2-1/2 | |
| | 50 | 4 | 150 | AE4TM-245015 | 57 (125) | 2-1/2 | 2-1/2 | |
| | 100 | 5 | 400 | AE5TM-241040 | 150 (330) | 4 | 4 | AMH5 |
| 480 | 1 | 0 | 3 | AE0TM-480103 | 32 (70) | 1-1/4 | 1-1/2 | AMH2 |
| | 3 | | 7 | AE0TM-480307 | | | | |
| | 5 | | 15 | AE0TM-480515 | | | | |
| | 7 | 1 | 15 | AE1TM-480715 | 32 (70) | 1-1/4 | 1-1/2 | |
| | 10 | | 30 | AE1TM-481030 | | | | |
| | 15 | 2 | 30 | AE2TM-481530 | 50 (110) | 1-1/2 | 1-1/2 | |
| | 25 | 2 | 50 | AE2TM-482550 | 50 (110) | 1-1/2 | 1-1/2 | |
| | 30 | 3 | 50 | AE3TM-483050 | 57 (125) | 2 | 2-1/2 | |
| | 50 | | 100 | AE3TM-485010 | | | | |
| | 100 | 4 | 150 | AE4TM-481015 | 57 (125) | 2-1/2 | 2-1/2 | |
| 200 | 5 | 400 | AE5TM-482040 | 150 (330) | 4 | 4 | AMH5 | |
| 600 | 1 | 0 | 3 | AE0TM-600103 | 32 (70) | 1-1/4 | 1-1/2 | AMH2 |
| | 3 | | 07 | AE0TM-600307 | | | | |
| | 5 | | 15 | AE0TM-600515 | | | | |
| | 7 | 1 | 15 | AE1TM-600715 | 32 (70) | 1-1/4 | 1-1/2 | |
| | 10 | | 30 | AE1TM-601030 | | | | |
| | 20 | 2 | 30 | AE2TM-602030 | 50 (110) | 1-1/2 | 1-1/2 | |
| | 25 | 2 | 50 | AE2TM-602550 | 50 (110) | 1-1/2 | 1-1/2 | |
| | 40 | 3 | 50 | AE3TM-604050 | 57 (125) | 2 | 2-1/2 | |
| | 50 | | 100 | AE3TM-605010 | | | | |
| | 60 | 4 | 100 | AE4TM-606010 | 57 (125) | 2-1/2 | 2-1/2 | |
| | 100 | | 150 | AE4TM-601015 | | | | |
| | 120 | 5 | 400 | AE5TM-601240 | 150 (330) | 4 | 4 | |
| 200 | 400 | | AE5TM-602040 | AMH5 | | | | |

▲ To complete the catalog number please add the appropriate suffix for other options/features. Suffixes, see AE Threaded Combination and Non-Combination Full Voltage Motor Starter Modifications.

AE Threaded Full Voltage Motor Starters

Explosionproof, Dust-Ignitionproof, Watertight

Threaded Enclosure. 3-Phase, 60 Hertz, Nonreversing.

NEC:

Class I, Division 1 and 2, Groups C, D
 Class II, Division 1 and 2, Groups E, F, G
 Class III
 NEMA 4, 4X, 7CD, 9EFG

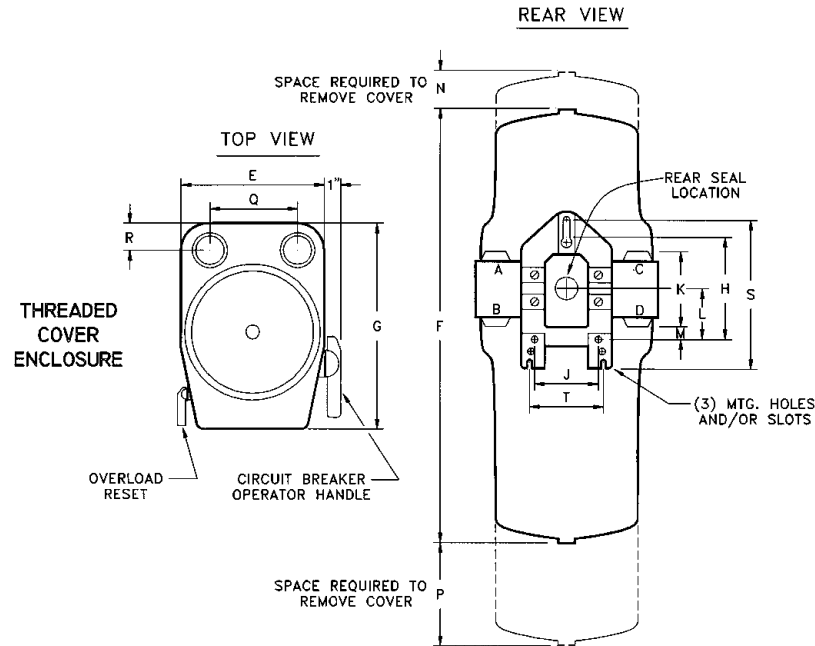
| Line Voltage | Maximum Horsepower | NEMA Size | Catalog Numbers [▲] | Aluminum Weight kg (lb) | Conduit Sizes Loc. A, B, C and D | | Mounting Hardware Set Catalog Number |
|--------------|--------------------|------------|------------------------------|----------------------------|----------------------------------|------------------|--------------------------------------|
| | | | | | Standard (Inches) | Maximum (Inches) | |
| 240 | 3 | 0 | AES0T-2403 | 30 (65) | 1-1/4 | 1-1/2 | AMH2 |
| | 7-1/2 | 1 | AES1T-2407 | 30 (65) | 1-1/4 | 1-1/2 | |
| | 15 | 2 | AES2T-2415 | 48 (105) | 1-1/2 | 1-1/2 | |
| | 30 | 3 | AES3T-2430 | 54 (120) | 2 | 2-1/2 | |
| | 50 | 4 | AES4T-2450 | 54 (120) | 2-1/2 | 2-1/2 | |
| 480 | 100 | 5 | AES5T-2410 | 136 (300) | 4 | 4 | AMH5 |
| | 5 | 0 | AES0T-4805 | 30 (65) | 1-1/4 | 1-1/2 | AMH2 |
| | 10 | 1 | AES1T-4810 | 30 (65) | 1-1/4 | 1-1/2 | |
| | 25 | 2 | AES2T-4825 | 48 (105) | 1-1/2 | 1-1/2 | |
| | 50 | 3 | AES3T-4850 | 54 (120) | 2 | 2-1/2 | |
| 100 | 4 | AES4T-4810 | 54 (120) | 2-1/2 | 2-1/2 | | |
| 600 | 200 | 5 | AES5T-4820 | 136 (300) | 4 | 4 | AMH5 |
| | 5 | 0 | AES0T-6005 | 30 (65) | 1-1/4 | 1-1/2 | AMH2 |
| | 10 | 1 | AES1T-6010 | 30 (65) | 1-1/4 | 1-1/2 | |
| | 25 | 2 | AES2T-6025 | 48 (105) | 1-1/2 | 1-1/2 | |
| | 50 | 3 | AES3T-6050 | 54 (120) | 2 | 2-1/2 | |
| 100 | 4 | AES4T-6010 | 54 (120) | 2-1/2 | 2-1/2 | | |
| 600 | 200 | 5 | AES5T-6020 | 136 (300) | 4 | 4 | AMH5 |

▲ To complete the catalog number please add the appropriate suffix for other options/features. Suffixes, see AE Threaded Combination and Non-Combination Full Voltage Motor Starter Modifications.

AE Threaded Combination/Non-Combination Full Voltage Motor Starter

Explosionproof, Dust-Ignitionproof, Watertight

Threaded Enclosure. 3-Phase, 60 Hertz, Nonreversing.



Dimensions in Millimeters (Inches) — Dimensions are approximate, not for construction

| Dimensions | AE0T and AES0T | AE1T and AES1T | AE2T and AES2T | AE3T and AES3T | AE4T and AES4T | AE5T and AES5T |
|------------|----------------|----------------|----------------|----------------|----------------|----------------|
| E | 270.0 (10.63) | 270.0 (10.63) | 352.5 (13.88) | 339.8 (13.38) | 339.8 (13.38) | 9482.6 (19.00) |
| F | 660.4 (26.00) | 660.4 (26.00) | 774.7 (30.50) | 1003.3 (39.50) | 1003.3 (39.50) | 1358.9 (53.50) |
| G | 387.3 (15.25) | 387.3 (15.25) | 488.9 (19.25) | 514.3 (20.25) | 514.3 (20.25) | 704.8 (27.75) |
| H | 203.2 (8.00) | 203.2 (8.00) | 203.2 (8.00) | 203.2 (8.00) | 203.2 (8.00) | — |
| J | 120.6 (4.75) | 120.6 (4.75) | 120.6 (4.75) | 120.6 (4.75) | 120.6 (4.75) | — |
| K | 136.6 (5.38) | 136.6 (5.38) | 133.3 (5.25) | 190.5 (7.50) | 190.5 (7.50) | 285.75 (11.25) |
| L | 95.5 (3.75) | 95.5 (3.75) | 95.5 (3.75) | 95.2 (3.75) | 95.2 (3.75) | 146.0 (5.75) |
| M | 26.9 (1.06) | 26.9 (1.06) | 26.9 (1.06) | — | — | 3.3 (0.13) |
| N | 190.5 (7.50) | 190.5 (7.50) | 190.5 (7.50) | 196.8 (7.75) | 266.7 (10.50) | 406.4 (16.00) |
| P | 279.4 (11.00) | 279.4 (11.00) | 457.2 (18.00) | 584.2 (23.00) | 584.2 (23.00) | 524.0 (20.63) |
| Q | 185.6 (7.31) | 185.6 (7.31) | 238.2 (9.38) | 219.2 (8.63) | 219.2 (8.63) | 289.0 (11.38) |
| R | 52.3 (2.06) | 52.3 (2.06) | 69.8 (2.75) | 76.2 (3.00) | 76.2 (3.00) | 107.4 (4.32) |
| S | — | — | — | — | — | 304.8 (12.00) |
| T | — | — | — | — | — | 165.1 (6.50) |

Approximate Weight in Kilograms (Pounds)

| For Enclosure Only | AE0T | AE1T | AE2T | AE3T | AE4T | AE5T |
|--------------------|-----------|------------|------------|------------|------------|------------|
| | 27.0 (60) | 27.0 (60) | 45.0 (100) | 49.5 (110) | 49.5 (110) | 94.5 (210) |
| | AES0T | AES1T | AES2T | AES3T | AES4T | AES5T |
| 27.0 (60) | 27.0 (60) | 42.75 (95) | 45.0 (100) | 45.0 (100) | 87.7 (195) | |